

**REMARKS**

The Examiner is thanked for the careful examination of the application, and for the indication of allowable subject matter. However, in view of the foregoing amendments and the remarks that follow, the Examiner is respectfully requested to reconsider and withdraw the outstanding rejections of the application.

Claim Rejections - 35 U.S.C. §112, First Paragraph:

Claims 5-8 have been rejected under 35 U.S.C. §112, first paragraph. The Examiner alleges that D is not adequately defined in the specification. Accordingly, the specification has now been amended to clearly define the gas interdiffusion coefficient D. Support for the amendments may be found at least on paragraph 0014 on page 4 of the application.

In view of the fact that the gas interdiffusion coefficient D is now clearly defined in the specification, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 5-8.

Claims 1, 4, 5, 8-11, 14-17, and 20-23 have been rejected under 35 U.S.C. §103(a) as being unpatentable over, among other matters, "Applicant's admitted prior art." The Examiner refers to Figures 1a, 1b and paragraphs 3-10 of the specification. However, the technology identified by the Examiner as "admitted prior art" is not prior art, and has never been admitted by the applicants as prior art. Specifically, the application identified in paragraph 0006 of the present application (U.S. Patent Application No. 09/435,625) claims priority of JP 11-157692. JP 11-157692 was published on December 12, 2000 as

JP 2000-345349, less than 12 months prior to the filing date of the present application, and after the priority date of the present application.

Applicants submit herewith a verified translation of JP 2000-188667, filed June 23, 2000, which is the priority application of the present application. The verified translation perfects the claim for priority of the present application to JP 2000-188667, thus removing JP 2000-345349 as prior art.

Since all of the prior art rejections in the present application rely upon the "admitted prior art," the Examiner is respectfully requested to specify how such technology is "admitted prior art" or else withdraw the rejections of the application.

In the event that there are any questions concerning this response, or the application in general, the Examiner is respectfully urged to telephone the undersigned attorney so that prosecution of the application may be expedited.

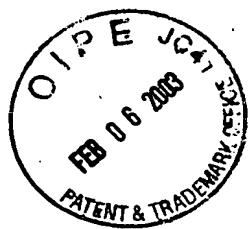
Respectfully submitted,

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**Mark-up of Specification**

**Paragraph 0025**

[0025] In the above-mentioned thin-film deposition apparatus according to the present invention, the above-mentioned plurality of holes through which the radicals pass are preferably formed so as to satisfy the condition  $uL/D > 1$ , where  $u$  is the gas flow rate inside these holes,  $L$  is the effective length of the holes (in the embodiments shown in Figures 2, 3 and 4, this length is equivalent to the thickness of dividing plate 24), and  $D$  is the gas interdiffusion coefficient (the gas interdiffusion coefficient of the [two types of] precursor gas and the gas introduced in the plasma discharge space at [both ends of] the holes). In a thin-film deposition apparatus according to the present invention, the plasma discharge space and film deposition process space on either side of the dividing plate are only connected through the holes provided in the dividing plate, but as proposed in a previous patent application (U.S. Patent Application No. 09/435,625), if these holes satisfy the above-mentioned condition ( $uL/D > 1$ ), then it is possible to prevent the precursor gas introduced into the film deposition process space from diffusing back towards the plasma discharge space.

**Paragraph 0054**

[0054] Note that in each of the above-mentioned embodiments, if the holes 8, 108, 208, 308 through which the radicals pass are formed so as to satisfy the condition  $uL/D > 1$ , where  $u$  is the gas flow rate inside these holes,  $L$  is the effective length of the holes (in the

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above-mentioned embodiments, this length is equivalent to the thickness of dividing plate), and  $D$  is the gas interdiffusion coefficient (the gas interdiffusion coefficient of the [two types of] precursor gas and the gas introduced in the plasma discharge space at [both ends of] the holes), then this is advantageous because it is possible to prevent the reverse diffusion of precursor gas introduced into film deposition process space 26 towards plasma discharge space 25.